



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,184	10/13/2005	Masayuki Takeda	200303.00011	5290
21324	7590	05/31/2006	EXAMINER	
HAHN LOESER & PARKS, LLP			THOMAS, ERIC W	
One GOJO Plaza			ART UNIT	
Suite 300			PAPER NUMBER	
AKRON, OH 44311-1076			2831	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/534,184

Applicant(s)

TAKEDA ET AL.

Examiner

Eric Thomas

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08).  
Paper No(s)/Mail Date 5/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

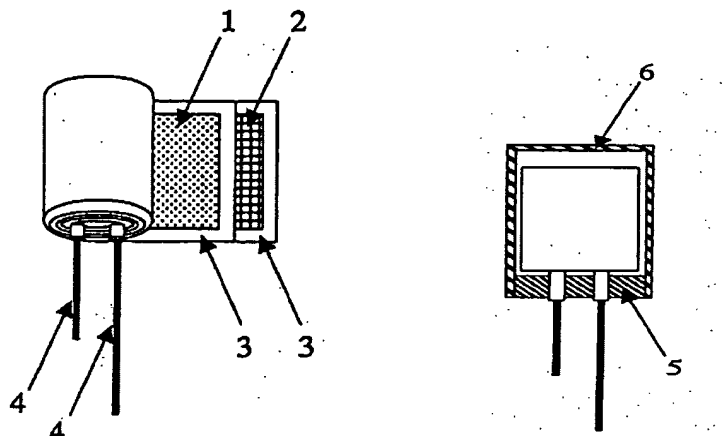
6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2, as best understood, is rejected under 35 U.S.C. 103(a) as being obvious over Takeda et al. (US 2004/0095708) in view of JP 11-067600 ('600).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).



Regarding claim 1, Takeda et al. disclose in fig. 1-2, an electrolytic capacitor obtained by impregnating a capacitor element with an electrolytic solution, wherein the capacitor element is formed by winding an anode electrode foil (1) and a cathode electrode foil (2), which are connected to an anode lead (4 – rod member showing) and a cathode lead (4 – rod member showing) respectively, separated by a separator (3), a housing (6) comprising a cylindrical outer case with a bottom and an open end; the open end is sealed by a sealing member (5), characterized in that the electrolytic solution contains an aluminum tetrafluoride salt (tetrafluoroaluminate is a synonym of aluminum tetrafluoride).

Takeda et al. disclose the claimed invention except for the anode and cathode leads comprise anode and cathode tabs.

'600 illustrate anode and cathode leads comprising anode and cathode tabs (see fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the anode and cathode leads with anode and cathode tabs as taught '600, since such a modification would provide the leads with increase surface area for attachment to the anode and cathode foils.

The modified Takeda et al. disclose a foil that shows noble metal electrode potential at least in the electrolyte solution than an electrode potential of the cathode tab is used as the cathode electrode foil (inherent feature – same elements – inherent feature).

Regarding claim 2, Takeda et al. disclose a titanium nitride is formed on an aluminum cathode foil. Takeda et al. disclose the claimed invention except for the coating has a thickness of 0.02 – 0.1  $\mu\text{m}$ .

'600 teaches an improved aluminum cathode foil having a titanium nitride coated on the surface thereof.

It would have been obvious to a person of ordinary skill in the at the time the invention was made to form laminate a cathode coating comprising titanium nitride having a thickness of 0.04 – 0.5  $\mu\text{m}$ , since such a modification would provide a cathode having improved mechanical, chemical, and electrical properties.

8. Claim 3, as best understood is rejected under 35 U.S.C. 103(a) as being obvious over Takeda et al. (US 2004/0095708) in view of JP 2001102265 ('265).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Regarding claim 3, Takeda et al. disclose an electrolytic capacitor obtained by winding an anode electrode foil provided with an anode leading means, and a cathode electrode foil which is made of aluminum subjected to a chemical treatment, provided with a cathode leading means and a separator means formed between the anode and cathode, the capacitor element is impregnated with an aluminum tetrafluoride salt and housed in an outer case.

Takeda et al. disclose the claimed invention except for the cathode lead means is formed of aluminum of more than 99.9 % purity.

'265 teaches the use of an improved cathode lead formed of an aluminum material of more than 99.9 % purity (see abstract).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the capacitor of Takeda et al. using the improved cathode lead means of '265, since such a modification would improve the overall impedance, stability of breakdown voltage characteristic of the system.

9. Claim 4, as best understood, is rejected under 35 U.S.C. 103(a) as being obvious over Takeda et al. (US 2004/0095708) in view of Arora et al. (RE 31,743).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).



Takeda et al. disclose an electrolytic capacitor obtained by winding an anode electrode foil, a cathode electrode foil and a separator to form an electrolytic capacitor and the electrolytic capacitor is impregnated with an electrolyte solution, and the wound element is housed in an outer case, wherein the electrolyte solution contains aluminum tetrafluoride salt.

Takeda et al. disclose the claimed invention except for the anode and cathode foil are subjected to a phosphate treatment.

Arora et al. teach the use of a phosphate treatment to improve foils for electrolytic capacitors.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to subject the anode and cathode foils with a phosphate treatment, since such a modification would etch the anode and cathode foils with little change in mechanical strength.

10. Claims 5/1- 5/2, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 2004/0095708) and JP 11-067600 ('600) as applied to claim 2 above, and further in view of Nitta et al. (US 6,262,879).

Regarding claims 5/1, 5/2, Takeda et al. disclose the claimed invention except for a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene is used as the sealing member.

Nitta et al. teach the use of an improve seal comprising a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made used the sealing material of Nitta et al. in the capacitor of Takeda et al., since such a modification would provide a sealing member having a more reliable sealing property.

11. Claim 5/3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 2004/0095708) and JP 2001102265 ('265) as applied to claim 3 above, and further in view of Nitta et al. (US 6,262,879).

Takeda et al. disclose the claimed invention except for a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene is used as the sealing member.

Nitta et al. teach the use of an improve seal comprising a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made used the sealing material of Nitta et al. in the capacitor of Takeda

et al., since such a modification would provide a sealing member having a more reliable sealing property.

12. Claim 5/4, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 2004/0095708) and Arora et al. (RE 31,743) as applied to claim 4 above, and further in view of Nitta et al. (US 6,262,879).

Takeda et al. disclose the claimed invention except for a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene is used as the sealing member.

Nitta et al. teach the use of an improve seal comprising a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made used the sealing material of Nitta et al. in the capacitor of Takeda et al., since such a modification would provide a sealing member having a more reliable sealing property.

### ***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

Art Unit: 2831

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1 and 2 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 35 of copending Application No. 10/704,803 in view of JP 11-067600 ('600). Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claim 1, '803 discloses an electrolytic solution comprising tetrafluoride salt (see claim 39).

'803 discloses the claimed invention except for the electrolytic capacitor is obtained by impregnating a capacitor element with an electrolytic solution, wherein the capacitor element is formed by winding an anode electrode foil and a cathode electrode foil, which are connected to an anode lead and a cathode lead respectively, separated by a separator, a housing comprising a cylindrical outer case with a bottom and an open end; the open end is sealed by a sealing member, and the anode and cathode leads comprise anode and cathode tabs.

'600 teaches that it is known in the capacitor art to form an electrolytic capacitor obtained by impregnating a capacitor element with an electrolytic solution, wherein the

capacitor element is formed by winding an anode electrode foil (2) and a cathode electrode foil (1), which are connected to an anode lead and a cathode lead respectively, separated by a separator, a housing comprising a cylindrical outer case with a bottom and an open end; the open end is sealed by a sealing member, and the anode and cathode leads comprise anode and cathode tabs.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the electrolyte in the capacitor of '600, since such a modification would provide the electrolyte with a system to operate in and provide a system with an electrolyte having high electrolytic conductivity, more excellent thermal stability, and excellent voltage proof property.

The modified '803 disclose a foil that shows noble metal electrode potential at least in the electrolyte solution than an electrode potential of the cathode tab is used as the cathode electrode foil (inherent feature – same elements – inherent feature).

Regarding claim 2, '600 disclose a titanium nitride is formed on an aluminum cathode foil and the coating has a thickness of 0.02 – 0.1  $\mu\text{m}$ .

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claim 3 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 35 of copending Application No. 10/704,803 in view of JP 2001-102265.

Regarding claim 3, '803 discloses an electrolytic solution comprising tetrafluoride salt (see claim 39).

'803 discloses the claimed invention except for an electrolytic capacitor obtained by winding an anode electrode foil provided with an anode leading means, and a cathode electrode foil which is made of aluminum subjected to a chemical treatment, provided with a cathode leading means and a separator means formed between the anode and cathode, the cathode lead formed of an aluminum material of more than 99.9 % pure, and the capacitor element is placed in an outer case.

'265 teaches a known electrolytic capacitor obtained by winding an anode electrode foil provided with an anode leading means, and a cathode electrode foil which is made of aluminum subjected to a chemical treatment, provided with a cathode leading means and a separator means formed between the anode and cathode, the cathode lead formed of an aluminum material of more than 99.9 % pure, and the capacitor element is placed in an outer case.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the electrolyte in the capacitor of '265, since such a modification would provide the electrolyte with a system to operate in and provide a system with an electrolyte having high electrolytic conductivity, more excellent thermal stability, and excellent voltage proof property.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 4, 5/4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 35 of copending Application No. 10/704,803 in view of Nitta et al. (US 6,262,879) and Arora et al. (RE 31,743).

Regarding claim 4, '803 discloses an electrolytic solution comprising tetrafluoride salt (see claim 39).

'803 discloses the claimed invention except for the capacitor is obtained by winding an anode electrode foil, a cathode electrode foil and a separator to form an electrolytic capacitor and impregnating the electrolyte capacitor with the electrolyte solution, wherein the anode and cathode foils are subjected to a phosphate treatment.

Nitta et al. disclose a capacitor obtained by winding an anode electrode foil, a cathode electrode foil and a separator to form an electrolytic capacitor and the capacitor is impregnated with an electrolyte solution.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the electrolyte in the capacitor of Nitta et al, since such a modification would provide the electrolyte with a system to operate in and provide a system with an electrolyte having high electrolytic conductivity, more excellent thermal stability, and excellent voltage proof property.

Arora et al. teach the use of a phosphate treatment to improve foils for electrolytic capacitors.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to subject the anode and cathode foils with a phosphate treatment,

since such a modification would etch the anode and cathode foils with little change in mechanical strength.

Regarding claim 5/4, Nitta et al. teach the use of an improve seal comprising a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

17. Claims 5/1-5/2 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 35 of copending Application No. 10/704,803 in view of JP 11-067600 ('600) and Nitta et al. (US 6,262,879).

Regarding claims 5/1-5/2, '803 discloses the claimed invention except for a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene is used as the sealing member.

Nitta et al. teach the use of an improve seal comprising a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene.



It would have been obvious to a person of ordinary skill in the art at the time the invention was made used the sealing material of Nitta et al. in the capacitor of the modified '803, since such a modification would provide a sealing member having a more reliable sealing property.

This is a provisional obviousness-type double patenting rejection.

18. Claim 5/3 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 35 of copending Application No. 10/704,803 in view of JP 2001-102265 and Nitta et al. (US 6,262,879).

'803 discloses the claimed invention except for a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene is used as the sealing member.

Nitta et al. teach the use of an improve seal comprising a partial cross-linking peroxide butyl rubber which is formed by that peroxide is added as a cross-linking agent to a butyl rubber polymer comprising a copolymer of isobutylene, isoprene, and divinylbenzene.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made used the sealing material of Nitta et al. in the capacitor of the modified '803, since such a modification would provide a sealing member having a more reliable sealing property.

This is a provisional obviousness-type double patenting rejection.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ewt

 5-26-06  
**ERIC W. THOMAS**  
**PRIMARY EXAMINER**